

SEQUENCE LISTING

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Yamaguchi Kimura
Shingo Sekine
Kouju Kamata

<120> HUMAN GALECTIN-9-LIKE PROTEINS AND cDNAs ENCODING THESE
PROTEINS

<130> GIN-6707CPUS

<140> 09/485,951

<141> 2000-02-17

<150> 9-226468

<151> 1997-08-22

<150> PCT/JP98/03670

<151> 1998-08-19

<160> 11

<170> PatentIn Ver. 2.0

<210> 1

<211> 32

<212> PRT

<213> Homo sapiens

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<211> 355

<212> PRT

<213> Homo sapiens

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20 25 30

Val Asn Gly Thr Val Leu Ser Ser Ser Gly Thr Arg Phe Ala Val Asn
35 40 45

Phe Gln Thr Gly Phe Ser Gly Asn Asp Ile Ala Phe His Phe Asn Pro

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55

60

Arg Phe Glu Asp Gly Gly Tyr Val Val Cys Asn Thr Arg Gln Asn Gly
65 70 75 80

Ser Trp Gly Pro Glu Glu Arg Lys Thr His Met Pro Phe Gln Lys Gly
85 90 95

Met Pro Phe Asp Leu Cys Phe Leu Val Gln Ser Ser Asp Phe Lys Val
100 105 110

Met Val Asn Gly Ile Leu Phe Val Gln Tyr Phe His Arg Val Pro Phe
115 120 125

His Arg Val Asp Thr Ile Ser Val Asn Gly Ser Val Gln Leu Ser Tyr
130 135 140

Ile Ser Phe Gln Asn Pro Arg Thr Val Pro Val Gln Pro Ala Phe Ser
145 150 155 160

Thr Val Pro Phe Ser Gln Pro Val Cys Phe Pro Pro Arg Pro Arg Gly
165 170 175

Arg Arg Gln Lys Pro Pro Gly Val Trp Pro Ala Asn Pro Ala Pro Ile
180 185 190

Thr Gln Thr Val Ile His Thr Val Gln Ser Ala Pro Gly Gln Met Phe
195 200 205

Ser Thr Pro Ala Ile Pro Pro Met Met Tyr Pro His Pro Ala Tyr Pro
210 215 220

Met Pro Phe Ile Thr Thr Ile Leu Gly Gly Leu Tyr Pro Ser Lys Ser
225 230 235 240

Ile Leu Leu Ser Gly Thr Val Leu Pro Ser Ala Gln Arg Phe His Ile
245 250 255

Asn Leu Cys Ser Gly Asn His Ile Ala Phe His Leu Asn Pro Arg Phe
260 265 270

Asp Glu Asn Ala Val Val Arg Asn Thr Gln Ile Asp Asn Ser Trp Gly
275 280 285

Ser Glu Glu Arg Ser Leu Pro Arg Lys Met Pro Phe Val Arg Gly Gln
290 295 300

Ser Phe Ser Val Trp Ile Leu Cys Glu Ala His Cys Leu Lys Val Ala
305 310 315 320

Val Asp Gly Gln His Leu Phe Glu Tyr Tyr His Arg Leu Arg Asn Leu
325 330 335

Pro Thr Ile Asn Arg Leu Glu Val Gly Gly Asp Ile Gln Leu Thr His
340 345 350

Val Gln Thr

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<213> Homo sapiens

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tgtttccac ccaggcccag ggggcgacaga caaaaa 96

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Met Ala Phe Ser Gly Ser Gln Ala Pro Tyr
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ctg agt cca gct gtc ccc ttt tct ggg act att caa gga ggt ctc cag 159
Leu Ser Pro Ala Val Pro Phe Ser Gly Thr Ile Gln Gly Gly Leu Gln
15 20 25

gac gga ctt cag atc act gtc aat ggg acc gtt ctc agc tcc agt gga 207
Asp Gly Leu Gln Ile Thr Val Asn Gly Thr Val Leu Ser Ser Ser Gly
30 35 40

acc agg ttt gct gtg aac ttt cag act ggc ttc agt gga aat gac att 255
Thr Arg Phe Ala Val Asn Phe Gln Thr Gly Phe Ser Gly Asn Asp Ile
45 50 55

gcc ttc cac ttc aac cct cgg ttt gaa gat gga ggg tac gtg gtg tgc 303
Ala Phe His Phe Asn Pro Arg Phe Glu Asp Gly Gly Tyr Val Val Cys
60 65 70

aac acg agg cag aac gga agc tgg ggg ccc gag gag agg aag aca cac 351
Asn Thr Arg Gln Asn Gly Ser Trp Gly Pro Glu Glu Arg Lys Thr His
75 80 85 90

atg cct ttc cag aag ggg atg ccc ttt gac ctc tgc ttc ctg gtg cag 399
Met Pro Phe Gln Lys Gly Met Pro Phe Asp Leu Cys Phe Leu Val Gln
95 100 105

agc tca gat ttc aag gtg atg gtg aac ggg atc ctc ttc gtg cag tac 447
Ser Ser Asp Phe Lys Val Met Val Asn Gly Ile Leu Phe Val Gln Tyr
110 115 120

ttc cac cgc gtg ccc ttc cac cgt gtg gac acc atc tcc gtc aat ggc 495
Phe His Arg Val Pro Phe His Arg Val Asp Thr Ile Ser Val Asn Gly
125 130 135

tct gtg cag ctg tcc tac atc agc ttc cag aac ccc cgc aca gtc cct 543
Ser Val Gln Leu Ser Tyr Ile Ser Phe Gln Asn Pro Arg Thr Val Pro
140 145 150

gtt cag cct gcc ttc tcc acg gtg ccg ttc tcc cag cct gtc tgt ttc 591
Val Gln Pro Ala Phe Ser Thr Val Pro Phe Ser Gln Pro Val Cys Phe
155 160 165 170

cca ccc agg ccc agg ggg cgc aga caa aaa cct ccc ggc gtg tgg cct 639

Pro Pro Arg Pro Arg Gly Arg Arg Gln Lys Pro Pro Gly Val Trp Pro
175 180 185

gcc aac ccg gct ccc att acc cag aca gtc atc cac aca gtg cag agc 687
Ala Asn Pro Ala Pro Ile Thr Gln Thr Val Ile His Thr Val Gln Ser
190 195 200

gcc cct gga cag atg ttc tct act ccc gcc atc cca cct atg atg tac 735
Ala Pro Gly Gln Met Phe Ser Thr Pro Ala Ile Pro Pro Met Met Tyr
205 210 215

ccc cac ccc gcc tat ccg atg cct ttc atc acc acc att ctg gga ggg 783
Pro His Pro Ala Tyr Pro Met Pro Phe Ile Thr Thr Ile Leu Gly Gly
220 225 230

ctg tac cca tcc aag tcc atc ctc ctg tca ggc act gtc ctg ccc agt 831
Leu Tyr Pro Ser Lys Ser Ile Leu Leu Ser Gly Thr Val Leu Pro Ser
235 240 245 250

gct cag agg ttc cac atc aac ctg tgc tct ggg aac cac atc gcc ttc 879
Ala Gln Arg Phe His Ile Asn Leu Cys Ser Gly Asn His Ile Ala Phe
255 260 265

cac ctg aac ccc cgt ttt gat gag aat gct gtg gtc cgc aac acc cag 927
His Leu Asn Pro Arg Phe Asp Glu Asn Ala Val Val Arg Asn Thr Gln
270 275 280

atc gac aac tcc tgg ggg tct gag gag cga agt ctg ccc cga aaa atg 975
Ile Asp Asn Ser Trp Gly Ser Glu Glu Arg Ser Leu Pro Arg Lys Met
285 290 295

ccc ttc gtc cgt ggc cag agc ttc tca gtg tgg atc ttg tgt gaa gct 1023
Pro Phe Val Arg Gly Gln Ser Phe Ser Val Trp Ile Leu Cys Glu Ala
300 305 310

cac tgc ctc aag gtg gcc gtg gat ggt cag cac ctg ttt gaa tac tac 1071
His Cys Leu Lys Val Ala Val Asp Gly Gln His Leu Phe Glu Tyr Tyr
315 320 325 330

cat cgc ctg agg aac ctg ccc acc atc aac aga ctg gaa gtg ggg ggc 1119
His Arg Leu Arg Asn Leu Pro Thr Ile Asn Arg Leu Glu Val Gly Gly
335 340 345

gac atc cag ctg acc cat gtg cag aca taggcggctt cctggccctg 1166
Asp Ile Gln Leu Thr His Val Gln Thr
350 355

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cagcctttcc aaccctgcct gggatctggg ctttaatgca gaggccatgt ccttgtctgg 1286

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<213> Homo sapiens

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35 40 45
Phe Gln Thr Gly Phe Ser Gly Asn Asp Ile Ala Phe His Phe Asn Pro
50 55 60
Arg Phe Glu Asp Gly Gly Tyr Val Val Cys Asn Thr Arg Gln Asn Gly
65 70 75 80
Ser Trp Gly Pro Glu Glu Arg Lys Thr His Met Pro Phe Gln Lys Gly
85 90 95
Met Pro Phe Asp Leu Cys Phe Leu Val Gln Ser Ser Asp Phe Lys Val
100 105 110
Met Val Asn Gly Ile Leu Phe Val Gln Tyr Phe His Arg Val Pro Phe
115 120 125
His Arg Val Asp Thr Ile Ser Val Asn Gly Ser Val Gln Leu Ser Tyr
130 135 140
Ile Ser Phe Gln Asn Pro Arg Thr Val Pro Val Gln Pro Ala Phe Ser
145 150 155 160
Thr Val Pro Phe Ser Gln Pro Val Cys Phe Pro Pro Arg Pro Arg Gly
165 170 175
Arg Arg Gln Lys Pro Pro Gly Val Trp Pro Ala Asn Pro Ala Pro Ile
180 185 190
Thr Gln Thr Val Ile His Thr Val Gln Ser Ala Pro Gly Gln Met Phe
195 200 205
Ser Thr Pro Ala Ile Pro Pro Met Met Tyr Pro His Pro Ala Tyr Pro

210 215 220

Met Pro Phe Ile Thr Thr Ile Leu Gly Gly Leu Tyr Pro Ser Lys Ser
225 230 235 240

Ile Leu Leu Ser Gly Thr Val Leu Pro Ser Ala Gln Arg Phe His Ile
245 250 255

Asn Leu Cys Ser Gly Asn His Ile Ala Phe His Leu Asn Pro Arg Phe
260 265 270

Asp Glu Asn Ala Val Val Arg Asn Thr Gln Ile Asp Asn Ser Trp Gly
275 280 285

Ser Glu Glu Arg Ser Leu Pro Arg Lys Met Pro Phe Val Arg Gly Gln
290 295 300

Ser Phe Ser Val Trp Ile Leu Cys Glu Ala His Cys Leu Lys Val Ala
305 310 315 320

Val Asp Gly Gln His Leu Phe Glu Tyr Tyr His Arg Leu Arg Asn Leu
325 330 335

Pro Thr Ile Asn Arg Leu Glu Val Gly Gly Asp Ile Gln Leu Thr His
340 345 350

Val Gln Thr
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<212> PRT
<213> Homo sapiens

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Val Asn Gly Thr Val Leu Ser Ser Ser Gly Thr Arg Phe Ala Val Asn
35 40 45

Phe Gln Thr Gly Phe Ser Gly Asn Asp Ile Ala Phe His Phe Asn Pro
50 55 60

Arg Phe Glu Asp Gly Gly Tyr Val Val Cys Asn Thr Arg Gln Asn Gly
65 70 75 80

Ser Trp Gly Pro Glu Glu Arg Arg Thr His Met Pro Phe Gln Lys Met
85 90 95

Pro Phe Asp Leu Cys Phe Leu Val Gln Ser Ser Asp Phe Lys Val Met
100 105 110

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115 120 125

Arg Val Asp Thr Ile Phe Val Asn Gly Ser Val Gln Leu Ser Tyr Ile
130 135 140

Ser Phe Gln Pro Pro Gly Val Trp Pro Ala Asn Pro Ala Pro Ile Thr
145 150 155 160

Gln Thr Val Ile His Thr Val Gln Ser Ala Pro Gly Gln Met Phe Ser
165 170 175

Thr Pro Ala Ile Pro Pro Met Met Tyr Pro His Pro Ala Tyr Pro Met
180 185 190

Pro Phe Ile Thr Thr Ile Leu Gly Gly Leu Tyr Pro Ser Lys Ser Ile
195 200 205

Leu Leu Ser Gly Thr Val Leu Pro Ser Ala Gln Arg Phe His Ile Asn
210 215 220

Leu Cys Ser Gly Asn His Ile Ala Phe His Leu Asn Leu Arg Phe Asp
225 230 235 240

Glu Asn Ala Val Val Arg Asn Thr Gln Ile Asp Asn Ser Trp Gly Ser
245 250 255

Glu Glu Arg Ser Leu Pro Arg Lys Met Pro Phe Val Arg Gly Gln Ser
260 265 270

Phe Ser Val Trp Ile Leu Cys Gly Ala His Cys Leu Lys Val Ala Val
275 280 285

Asp Gly Gln His Leu Phe Glu Tyr Tyr His Arg Leu Arg Asn Leu Pro
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Thr Ile Asn Arg Leu Glu Val Gly Gly Asp Ile Gln Leu Thr His Val
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Gln Thr

<210> 8
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<212> PRT
<213> Mus musculus

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Leu Gln Gly Thr Thr Lys Ser Phe Ala Gln Arg Phe Val Val Asn Phe
35 40 45

Q2
cont

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 Phe Glu Asp Gly Gly Tyr Val Val Cys Asn Thr Arg Gln Asn Gly Ser
 65 70 75 80
 Trp Gly Pro Glu Glu Arg Lys Thr His Met Pro Phe Gln Lys Gly Met
 85 90 95
 Pro Phe Asp Leu Cys Phe Leu Val Gln Ser Ser Asp Phe Lys Val Met
 100 105 110
 Val Asn Gly Ile Leu Phe Val Gln Tyr Gln His Arg Val Pro Tyr His
 115 120 125
 Leu Val Asp Thr Ile Ala Val Ser Gly Cys Leu Lys Leu Ser Phe Ile
 130 135 140
 Thr Phe Gln Asn Ser Ala Ala Pro Val Gln His Val Phe Ser Thr Leu
 145 150 155 160
 Gln Phe Ser Gln Pro Val Gln Phe Pro Arg Thr Pro Lys Gly Arg Lys
 165 170 175
 Gln Lys Thr Gln Asn Phe Arg Pro Ala His Gln Ala Pro Met Ala Gln
 180 185 190
 Thr Thr Ile His Met Val His Ser Thr Pro Gly Gln Met Phe Ser Thr
 195 200 205
 Pro Gly Ile Pro Pro Val Val Tyr Pro Thr Pro Ala Tyr Thr Ile Pro
 210 215 220
 Phe Tyr Thr Pro Ile Pro Asn Gly Leu Tyr Pro Ser Lys Ser Ile Met
 225 230 235 240
 Ile Ser Gly Asn Val Leu Pro Asp Ala Thr Arg Phe His Ile Asn Leu
 245 250 255
 Arg Cys Gly Gly Asp Ile Ala Phe His Leu Asn Pro Arg Phe Asn Glu
 260 265 270
 Asn Ala Val Val Arg Asn Thr Gln Ile Asn Asn Ser Trp Gly Gln Glu
 275 280 285
 Glu Arg Ser Leu Leu Gly Arg Met Pro Phe Ser Arg Gly Gln Ser Phe
 290 295 300
 Ser Val Trp Ile Ile Cys Glu Gly His Cys Phe Lys Val Ala Val Asn
 305 310 315 320
 Gly Gln His Met Cys Glu Tyr Tyr His Arg Leu Lys Asn Leu Gln Asp
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 Ile Asn Thr Leu Glu Val Ala Gly Asp Ile Gln Leu Thr His Val Gln
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Thr

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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:primer

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<212> DNA
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<210> 11
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<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:primer

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